



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

OCT 21 2011

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Rob Maciel  
Environmental Manager  
ArcelorMittal Burns Harbor, LLC  
250 West U.S. Highway 12  
Burns Harbor, Indiana 46304

Dear Mr. Maciel:

This is to advise you that the United States Environmental Protection Agency (EPA) has determined that the ArcelorMittal Burns Harbor, LLC facility located at 250 West U.S. Highway 12, Burns Harbor, Indiana (Burns Harbor Facility) is in violation of the Clean Air Act (the CAA) and associated state pollution control requirements.

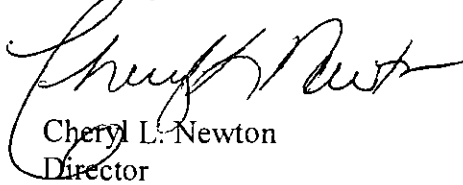
The EPA is sending this Notice of Violation and Finding of Violation (NOV/FOV) to notify you that at the Burns Harbor Facility we have identified violations of the facility's Title V Permit, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Manufacturing Facilities at 40 C.F.R. Part 63, Subpart FFFFF; the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks at 40 C.F.R. Part 63, Subpart CCCCC; the NESHAP for Steel Pickling-HCL Processing Facilities and Hydrochloric Acid Regeneration Plants at 40 C.F.R. Part 63, Subpart CCC; and the Indiana State Implementation Plan.

Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action and bringing a judicial criminal action. The option we select, in part, depends on the efforts taken by ArcelorMittal to correct the alleged violations and the timeframe in which you can demonstrate and maintain continuous compliance with the requirements cited in the NOV/FOV.

Before we determine which enforcement option is appropriate, we are offering you the opportunity to request a conference with us about the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contacts for this matter are Brian Dickens and Reza Bagherian. You may call them at (312) 886-6073 or (312) 886-0674, if you wish to request a conference. Legal questions should be directed to Cynthia A. King, Associate Regional Counsel, at 312-886-6831. The EPA hopes that this NOV/FOV will encourage ArcelorMittal's compliance with the requirements of the CAA.

Sincerely,

A handwritten signature in black ink, appearing to read "Cheryl Newton", is written over the printed name and title.

Cheryl L. Newton  
Director

Air and Radiation Division

Enclosure

cc: Janusz Johnson  
Office of Enforcement Air Section  
Indiana Department Environmental Management  
100 North Senate Avenue, Room 1001  
Indianapolis, Indiana 46206-6015

**United States Environmental Protection Agency  
Region 5**

<b>IN THE MATTER OF:</b>	)	
	)	
<b>ArcelorMittal Burns Harbor, LLC</b>	)	<b>NOTICE OF VIOLATION AND</b>
<b>Burns Harbor, Indiana</b>	)	<b>FINDING OF VIOLATION</b>
	)	
<b>Proceedings Pursuant to</b>	)	<b>EPA-5-11-IN-11</b>
<b>the Clean Air Act,</b>	)	
<b>42 U.S.C. §§ 7401 <u>et seq.</u></b>	)	
	)	

**NOTICE AND FINDING OF VIOLATION**

ArcelorMittal Burns Harbor, LLC (ArcelorMittal) owns and operates an iron and steel manufacturing facility located at 250 West U.S. Highway 12 in Burns Harbor, Indiana (Burns Harbor Facility).

The U.S. Environmental Protection Agency (EPA) is sending this Notice and Finding of Violation (NOV/FOV) to ArcelorMittal pursuant to Sections 113(a)(1) and (3) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a)(1) and (3), to notify ArcelorMittal that at the Burns Harbor Facility we have identified violations of the facility's Title V permit, the National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities at 40 C.F.R. Part 63, Subpart FFFFF (Iron and Steel NESHAP); the NESHAP for Coke Ovens: Pushing, Quenching and Battery Stacks at 40 C.F.R. Part 63, Subpart CCC (Coke Oven NESHAP); the NESHAP for Steel Pickling – HCL Processing Facilities and Hydrochloric Acid Regeneration Plants at 40 C.F.R. Part 63, Subpart CCCCC (Steel Pickling NESHAP); and the Indiana State Implementation Plan (SIP).

**I. REGULATORY BACKGROUND**

The permits and regulatory provisions relevant to this NOV/FOV are as follows:

**a. Iron and Steel NESHAP**

The Burns Harbor Facility is subject to the requirements of the Iron and Steel NESHAP at 40 C.F.R. Part 63, Subpart FFFFF. The following requirements are found in the Iron and Steel NESHAP:

- i. Pursuant to 40 C.F.R. § 63.7790(d), you must maintain your 30-day rolling average VOC emissions from windbox exhaust at or below 0.2 lb/ton of sinter;
- ii. Pursuant to 40 C.F.R. § 63.7800(b), you must prepare and operate at all times

according to a written operation and maintenance plan for each capture system or control device subject to an operating limit in § 63.7790(b);

- iii. Pursuant to 40 C.F.R. § 63.7830(e), you must compute and record a 30-day rolling average oil content and VOC emissions; and
- iv. Pursuant to 40 C.F.R. § 63.7833(a), you must demonstrate continuous compliance for each affected source subject to an emission or opacity limit in 40 C.F.R. § 63.7790(a) by meeting the requirements in Table 3 to this subpart.

b. Coke Oven NESHAP

The Burns Harbor Facility is subject to the Coke Oven NESHAP at 40 C.F.R. Part 63, Subpart CCCCC. The following requirements are found in the Coke Oven NESHAP:

- i. Pursuant to 40 C.F.R. § 63.7295(b), you must wash baffles in quench towers each day that the tower is used to quench coke;
- ii. 40 C.F.R. § 63.7296 limits opacity from battery stacks to 15% as a daily average, as determined by a continuous opacity monitor;
- iii. Pursuant to 40 C.F.R. § 63.7300(b), you must prepare and operate at all times according to a written operation and maintenance plan; and
- iv. Pursuant to 40 C.F.R. § 63.7331(b), you must develop a continuous parameter monitoring system plan, which includes data quality assurance procedures.

c. Steel Pickling NESHAP

The Burns Harbor Facility is subject to the Steel Pickling NESHAP, 40 C.F.R. Part 63, Subpart CCC. The following requirements are found in the Steel Pickling NESHAP:

- i. 40 C.F.R. § 63.1157(a) requires that emissions from an existing pickling line be less than 18 ppm of HCl, or a 97% HCl collection efficiency; and
- ii. 40 C.F.R. § 63.1162(a)(2) and (4) require that the fume scrubber water flow rate and differential pressure be continuously measured and recorded.

d. Indiana SIP

The Burns Harbor Facility is subject to the Indiana SIP. The following requirements are found in the Indiana SIP:

- i. 326 IAC 5-1-2, governing visible emissions, became effective June 16, 1997, 62 Fed. Reg. 18521, as part of the Indiana SIP.

- ii. 326 IAC 5-1-2 provides that visible emissions shall not exceed 40% opacity on a six-minute average (24 consecutive readings). The most recent revision of these rules was approved as part of the Indiana SIP on April 16, 1997, 62 Fed. Reg. 18521.
- iii. 326 IAC 4-1-2 provides that no person may open burn any material. This regulation was approved as part of the Indiana SIP on May 18, 1983, 48 Fed. Reg. 22294.
- iv. 326 IAC 6-4-2 provides that no Permittee shall allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located. The most recent revision of these rules was approved as part of the Indiana SIP on October 28, 1975, 40 Fed. Reg. 50032

e. Title V

The Burns Harbor Facility is a Title V source. The following requirements are found in Title V:

- i. Title V of the CAA, 42 U.S.C. §§ 7661a-7661f, establishes an operating permit program for certain sources, including "major sources." Pursuant to Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), on July 21, 1992, 57 Fed. Reg. 32295, the EPA promulgated regulations establishing the minimum elements of a permit program to be administered by any air pollution control agency. These regulations are codified at 40 C.F.R. Part 70.
- ii. 40 C.F.R. § 70.2 defines "major source," in part, as any stationary source belonging to a single major industrial grouping and that directly emits or has the potential to emit 100 tons per year (tpy) of any air pollutant, as defined under Section 302 of the CAA, 42 U.S.C. § 7602.
- iii. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), states that after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate the source except in compliance with its Title V permit.
- iv. 40 C.F.R. § 70.7(b) states that no source subject to Title V may operate the source except in compliance with a Title V permit.
- v. The EPA promulgated final interim approval of the Indiana Title V program on November 14, 1995, 60 Fed. Reg. 57191, and the program became effective on that date.
- vi. The EPA approved 326 IAC 2-7-5, governing Title V permit content, effective December 14, 1995, 60 Fed. Reg. 57188, as part of the Indiana SIP.

- vii. 326 IAC 2-7-5(1) provides that Title V permits shall incorporate emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of a Part 70 permit issuance.
- viii. EPA approved 326 IAC 2-7-6, governing compliance requirements, effective December 14, 1995, 60 Fed. Reg. 57188, as part of the Indiana SIP.
- ix. 326 IAC 2-7-6(1) provides that Title V permits issued under this rule shall contain requirements with respect to compliance certification, testing, monitoring, reporting and record keeping sufficient to assure compliance with the terms and conditions of a Part 70 permit consistent with section 5(3) of this rule.
- x. On July 22, 1996, ArcelorMittal's predecessor submitted a Title V Permit application for source ID No. 127-00001. IDEM issued Title V Permit No. 127-6301-00001 to ArcelorMittal for the Burns Harbor Facility on December 27, 2007.
- xi. Condition D.3.5 of ArcelorMittal's Title V Permit requires monitoring of the blast furnace granulation milling operations. The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, and shall be calibrated in accordance with the manufacturer's specifications.
- xii. Condition D.9.3 of ArcelorMittal's Title V Permit requires NO<sub>x</sub> emissions from the hot dip coating line shall not exceed 2.99 pounds per hour (0.031 pounds per MMBtu).
- xiii. Condition D.9.7 (a) of ArcelorMittal's Title V Permit requires eighty percent (80%) destruction efficiency for nitrogen oxides in the proposed selective catalytic reduction/NO<sub>x</sub> control device (C672-6008), and the following operating parameters shall be maintained: (1) a minimum of 0.8 moles of ammonia per mole of NO<sub>x</sub>;
- xiv. Condition D.9.7(b) of ArcelorMittal's Title V Permit requires that the source shall monitor the nitrogen oxide emissions from the hot dip coating line using a continuous emission monitor;
- xv. Condition D.1.6 of ArcelorMittal's Title V Permit, incorporating the requirements set forth in 326 IAC 11-3-2, states that visible emissions must not be present for more than 125 seconds during five consecutive charges; and
- xvi. Condition C.14 of ArcelorMittal's Title V Permit requires that ArcelorMittal submit compliance monitoring reports which are certified to be true, accurate,

and complete.

- xvii. Section 113(a)(1)-(3) of the CAA, 42 U.S.C. § 7413(a)(1)-(3), authorizes the Administrator to initiate an enforcement action whenever, on the basis of any available information, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of, among others, any implementation plan or permit, Title I or Title V of the CAA, or any rule promulgated, issued, or approved under Title I or Title V of the CAA.

## **II. BASIS FOR VIOLATIONS**

The violations alleged in this NOV/FOV are based on the EPA's review of the following:

- i. The EPA inspections of the Burns Harbor Facility on March 8, 2006; July 14, 2006; July 28, 2006; July 31, 2006; August 9, 2006; August 22, 2006; June 1, 2007; June 13, 2007; November 28, 2007; and June 28, 2011;
- ii. ArcelorMittal's responses to Section 114 information requests issued on: November 1, 2006; July 10, 2007; February 11, 2008; February 26, 2009; and April 15, 2010;
- iii. Quarterly Deviation and Compliance Monitoring Reports from 1<sup>st</sup> quarter 2008 through 1<sup>st</sup> quarter 2011;
- iv. Semiannual Deviation and Compliance Monitoring Reports for 2008 through 2011; and
- v. ArcelorMittal's Section 114 information request responses dated: December 19, 2006; March 16, 2007; March 12, 2007; May 24, 2007; September 7, 2007; September 24, 2007; November 1, 2007; and May 4, 2009.

## **III. EXPLANATION OF VIOLATIONS**

The EPA found the following violations at the Burns Harbor Facility:

- a. Sinter Plant Opacity at the Windbox Stack

Regulated by: Indiana SIP 326 IAC 5-1-2(1)(A)

Source(s): Opacity readings taken by an EPA Inspector on August 22, 2006, and by an IDEM Inspector on June 20, 2007  
Quarterly Deviation and Compliance Monitoring Report: July 1, 2009 – September 30, 2009

Date(s)	Limit	Exceedance
08/22/06	40%, 6-min avg	50%, 41%
6/20/07	40%, 6-min avg	45%, 43%, 46%

ArcelorMittal reported in its third quarter 2009 Quarterly Deviation and Compliance monitoring report that mass particulate tests at the sinter plant windbox scrubber indicated visible emissions in excess of 40% occurred 45 times (dates not specified).

b. Sinter Plant VOC from Windbox Exhaust Emissions Monitoring

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7830(e)  
Title V Permit, Condition E.1.1

Sources: Semiannual Deviation and Compliance Reports: January 1, 2008 – December 31, 2008

ArcelorMittal reported that it failed to monitor the volatile organic compound (VOC) emissions from the windbox exhaust on 10 days in 2008.

c. Sinter Plant VOC from Windbox Exhaust Emissions Compliance

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7790(d)  
Title V Permit, Condition E.1.1

Sources: Semiannual Deviation and Compliance Monitoring Report:  
January 1, 2008 – June 30, 2008

ArcelorMittal reported that it failed to maintain the VOC emissions from the windbox exhaust below 0.2 lb/ton of sinter on 25 days in 2008.

d. Sinter Plant - Capture and Control Equipment

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7800(b)  
Title V Permit, Attachment A

Sources: Semiannual Deviation and Compliance Reports: January 1, 2008 – December 31, 2008  
Semiannual Deviation and Compliance Reports: January 1, 2009 – December 31, 2009  
Semiannual Deviation and Compliance Reports: January 1, 2010 – December 31, 2010

- i. Failure to take a variety of actions needed to properly operate the capture and control systems on the sinter plant, including failing to meet windbox minimum differential pressure on 2 days in 2008;
- ii. Failure to properly monitor windbox scrubber water flowrate from July 11, 2008 through July 18, 2008 by not noticing and repairing defective equipment;



- iii. Failure to maintain a discharge end baghouse minimum air flow rate on December 9, 2008;
- iv. Failure to meet the minimum control airflow requirement for sinter plant windbox scrubber differential pressure and exhaust air discharge specified by its O&M Plan on 1 day in 2009;
- v. Failure to meet the minimum airflow rate for its sinter plant discharge end capture system on 2 days in 2009;
- vi. Failure to record at least 18 separate periodic inspection and monitoring requirements during the third and fourth quarters of 2009 at the sinter plant as required by the O&M Plan, including weekly, monthly, and quarterly inspections of equipment to ensure proper operation;
- vii. Failure to properly operate the capture and control systems of the sinter plant by leaving the #3 Screw Conveyor Pan ajar on 1 day in 2010; and
- viii. Failure to properly operate the capture and control systems of the sinter plant by initiating the baghouse fan vent fan change out during sintering on 1 day in 2010.

e. Blast Furnace Relief Valves and Back Draft Stack

Regulated by: Title V Permit, Condition C.1  
Indiana SIP 326 IAC 5-1-2

Source(s): Opacity readings taken by an EPA Inspector on July 31, 2006, and by an ArcelorMittal contractor from April through June, 2009

Date(s)	Limit	Exceedance
07/31/06, C Relief Valves	40%, 6-min avg	42%
4/16/09, C Relief Valves	40%, 6-min avg	49%
4/17/09, C Relief Valves	40%, 6-min avg	54%, 52%
6/10/09, C Relief Valves	40%, 6-min avg	59%, 44%, 42%

f. Open Burning at the Slab Laydown Yard

Regulated by: Indiana SIP 326 IAC 4-1-2

Source: Visual Observations by an EPA Inspector on August 22, 2006

Date(s)	Limit	Exceedance
08/22/06	Open Burning Not Allowed	Open Burning

g. No. 3 BOF Vessel Secondary Control

Regulated by: Indiana SIP 326 IAC 2-1-3 for construction permits

Source: Construction Permit PC64716, dated July 11, 1974, states "some type of auxiliary hoods will be installed for tapping and charging."

On or around April 15, 2006, ArcelorMittal took the charging hood permanently out of service. There was no auxiliary hood in place to capture emissions after this date. Additionally, no tapping hood was in service during an EPA inspection on July 28, 2006.

h. C and D Blast Furnace Opacity at Roof Monitor

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7790(a), Tables 1 and 3  
Title V Permit, Condition D.5.8

Source(s): ArcelorMittal's September 21, 2007, Information Request Response

C Casthouse

Date(s)	Number of Violations
08/08/07	1
08/15/07	1
08/18/07	2
09/11/07	2
09/20/07	2

D Casthouse

Date(s)	Number of Violations
08/06/07	1
08/08/07	1

i. Blast Furnace Coal Granulation Milling Operation

Regulated by: Title V Permit, Condition D.3

Source: Quarterly Deviation and Compliance Monitoring Report First  
Quarter 2009: January 1, 2009 – March 30, 2009

ArcelorMittal reported that it failed to calibrate the baghouse differential pressure transmitter annually.

j. Hot Dip Coating Line

Regulated by: Title V Permit, Condition D.9.3

Source(s): Quarterly Deviation and Compliance Monitoring Report: January  
1, 2009 – March 30, 2009  
Quarterly Deviation and Compliance Monitoring Report: January  
1, 2008 – March 31, 2008

ArcelorMittal reported that it failed to maintain its NO<sub>x</sub> emissions below 2.99 lb/hr on 2 days in 2008 and 4 days in 2009.

k. Hot Dip Coating Line

Regulated by: Title V Permit, Condition D.9.7(a)  
Title V Permit, Condition D.9.7(b)

Source(s): Quarterly Deviation and Compliance Monitoring Report: April 1,  
2009 – June 30, 2009  
Quarterly Deviation and Compliance Monitoring Report: October  
1, 2009 – December 31, 2009  
Quarterly Deviation and Compliance Monitoring Report: January  
1, 2010 – December 31, 2010  
Quarterly Deviation and Compliance Monitoring Report: January  
1, 2011 – March 31, 2011

ArcelorMittal reported that it failed to maintain at least 0.8 moles of ammonia per mole of NO<sub>x</sub> or failed to maintain the operating temperature of the SCR between 500F and 900F:

Year	Month	Days
2009	January	7, 8
2009	February	13
2009	March	28
2009	June	23, 24
2009	July	7, 10, 11, 12, 13, 14, 15, 25, 26, 29

2009	August	2, 3, 4, 16, 19, 21, 23, 25, 26, 27, 28
2009	September	5, 6, 13, 15, 17, 21, 22, 24, 27, 28, 29
2009	October	2, 3, 8, 9, 11, 19, 29
2009	November	7, 10, 27, 29
2009	December	3, 6, 7, 8, 11, 13, 14, 16, 17, 20, 25, 26, 28, 29, 30
2010	January	1, 2, 9, 12, 15, 16, 19, 21, 23, 24, 25, 29, 30, 31
2010	February	2
2010	March	7, 9, 10, 11, 14, 20, 24, 26, 27, 31
2010	April	1, 5, 6, 11, 12, 16, 18, 26, 28, 29, 30
2010	May	1, 2, 8, 9, 10, 13, 14, 16, 26, 27, 28, 29, 30
2010	June	3, 4, 5, 6, 9, 10, 15, 20, 21, 26, 27, 29
2010	July	27, 29, 31
2010	August	3, 6, 23, 24, 29
2010	September	9, 10
2010	October	10, 11, 17, 19, 20, 23, 24
2010	November	2, 3, 6, 13, 16, 21, 23, 24, 29, 30
2010	December	7, 8, 9, 10, 17, 20, 21, 23, 24, 26, 27, 29, 30
2011	January	6, 11, 13, 14, 16, 18, 24, 25, 26
2011	February	1, 4, 8, 10, 19, 21, 23, 24, 26, 27
2011	March	2, 5, 8, 11, 19, 24, 26, 31

ArcelorMittal reported that on May 6, 10, 14, 24, 2009, it failed to measure the NOx emissions from the coating line using a continuous emission monitor.

ArcelorMittal reported in first quarter of 2011 that PM calibrations of the HDCL NOx analyzer were not completed in time.

#### 1. Fugitive Dust – Iron Beaching

Regulated by: Title V Permit, Condition D.12.1  
Indiana SIP 326 IAC 6-4-2

Source: Quarterly Deviation and Compliance Monitoring Report: October 1, 2009 – December 31, 2009  
Quarterly Deviation and Compliance Monitoring Report: January 1, 2010 – December 31, 2010  
Quarterly Deviation and Compliance Monitoring Report: January 1, 2011 – March 31, 2011

ArcelorMittal reported that iron beaching activities caused particulate matter to cross the property line on the following dates:

Year	Month	Days
2009	January	1, 2, 3, 4
2009	February	12, 27
2009	March	1, 31

2009	April	1, 15, 29
2009	May	6
2009	June	23
2009	July	8, 12, 14, 17, 19, 20, 21
2009	August	3, 4, 10, 13, 26
2009	September	19
2009	November	30
2009	December	10, 11, 12, 27
2010	February	27
2010	March	4, 5
2010	April	11
2010	May	12, 21, 29
2010	June	4, 6, 8, 9, 11
2010	July	5, 6, 12, 16, 18, 19, 20, 21
2010	August	21, 23, 24, 28, 29, 30, 31
2010	September	1, 6, 9, 10, 12, 16, 30
2010	October	2, 3, 5, 8, 9, 15, 16, 26, 27, 28, 31
2010	November	2, 5, 6, 9, 10, 20, 21
2010	December	3, 10, 12, 16, 18, 19, 25, 27, 30
2011	January	11, 21, 22, 23, 24, 26, 27, 31
2011	February	3, 5, 7, 10, 17, 18, 22, 25, 26
2011	March	1, 4, 12, 21, 31

m. Entire Source Fugitive Dust – Iron Beaching

Regulated by: Title V Permit, Condition C.1  
Indiana SIP 326 IAC 5-1-2

Source: ArcelorMittal's May 4, 2009, Information Request Response

ArcelorMittal reported opacity from iron beaching in excess of 40% as a 6-minute average on the following date:

Date(s)	Limit	Exceedance
04/01/09	40%, 6-min avg	64%, 81%

n. Emergency Response Plan

Regulated by: Title V Permit, Condition C.17  
Indiana SIP 326 IAC 1-5-2

Source: Quarterly Deviation and Compliance Monitoring Report: April 1, 2008 – June 30, 2008

ArcelorMittal reported that it failed to create the Emergency Response Plan and submit it to IDEM within 90 days of receipt of the permit.

o. Coke Oven Battery Stack Opacity

Regulated by: Title V Permit, Condition C.1  
Indiana SIP 326 IAC 5-1-2

Source: Quarterly Deviation and Compliance Monitoring Report: October 1, 2009 – December 31, 2009  
Quarterly Deviation and Compliance Monitoring Reports: January 1, 2010 – December 31, 2010  
Quarterly Deviation and Compliance Monitoring Report: January 1, 2011 – March 31, 2011

ArcelorMittal reported the following violations of the 40% as six-minute average opacity limit at its Coke Oven Battery #1 underfire stack, as monitored by its continuous opacity monitor:

Date(s)	Time	Opacity (40% as six-minute average)
01/15/08	11:37 – 11:43	48%
	11:43 – 11:49	52%
	11:49 – 11:55	43%
01/17/08	00:49 – 00:55	48%
02/15/08	05:55 – 06:01	44%
03/20/08	21:49 – 21:55	47%
04/07/08	13:43 – 13:49	45%
	13:49 – 13:55	46%
	13:55 – 14:01	45%
	14:01 – 14:07	42%
05/14/08	21:31 – 21:37	45%
09/30/08	21:55 – 22:01	41%
12/23/08	17:49 – 17:55	49%
05/01/09	02:37 – 02:43	45%
	02:43 – 02:49	47%
05/08/09	02:13 – 02:19	59%
06/27/09	18:37 – 18:43	44%
7/10/09	16:49-16:55	41%
07/17/09	00:43 – 00:49	56%
	00:49 – 00:55	42%
09/27/09	20:13 – 20:19	49%
10/21/09	13:37 – 13:43	48%
10/22/09	19:19 – 19:25	43%
12/11/09	19:07 – 19:13	41%
01/12/10	02:13 – 02:19	43%
03/10/10	06:43 – 06:49	52%
03/11/10	00:19 – 00:25	51%

03/25/10	08:13 – 08:19	44%
05/04/10	00:25 – 00:31	45%
	00:31 – 00:37	42%
05/05/10	20:13 – 20:19	52%
	22:25 – 22:31	42%
	23:01 – 23:07	47%
05/06/10	08:01 – 08:07	57%
	08:07 – 08:13	46%
6/25/10	21:01-22:59	25%
07/13/10	15:25 – 15:31	42%
07/15/10	12:49 – 12:55	45%
08/24/10	06:49 – 06:55	57%
02/11/11	22:31 – 22:37	49%
02/17/11	02:01 – 02:07	41%
02/25/11	18:31 – 18:37	47%

p. Coke Oven Battery Fugitive Opacity

Regulated by: Title V Permit, Condition D.1.6  
Indiana SIP 326 IAC 11-3-2(b)(4)  
Indiana SIP 326 IAC 11-3-2(d)(4)  
Indiana SIP 326 IAC 11-3-2(f)(4)

Source: Observations made by an IDEM inspector  
Quarterly Deviation and Compliance Monitoring Report: July 1,  
2008 – September 30, 2008

Charging Systems:

Date(s)	Limit	# of Violations
08/30/06	125 sec, 5 charges	1
07/18/07	125 sec, 5 charges	1
August 2008 (date not specified)	125 sec, 5 charges	1

Source: Quarterly Deviation and Compliance Monitoring Report: October  
1, 2009 – December 31, 2009  
Quarterly Deviation and Compliance Monitoring Reports: January  
1, 2010 – December 31, 2010  
Quarterly Deviation and Compliance Monitoring Report: January  
1, 2011 – March 31, 2011

Offtake Piping:

Date(s)	Limit	# of Violations
May 2009	10% offtake piping	1
July 2010	10% offtake piping	1

Oven Doors:

Date(s)	Limit	# of Violations
March 2010	10% oven doors	1
April 2010	10% oven doors	1
May 2010	10% oven doors	1
August 2010	10% oven doors	2
September 2010	10% oven doors	2

q. Coke Oven Battery Stack Continuous Opacity Monitors

Regulated by: Coke Oven NESHAP, 40 C.F.R. § 63.7331(b)  
Title V Permit, Attachment A

Source: Quarterly Deviation and Compliance Monitoring Report: January 1, 2009 – March 31, 2009

ArcelorMittal reported that it failed to document data quality assurance procedures for the continuous opacity monitors on the underfire battery stack from January 1, 2009, to February 20, 2009.

r. Coke Oven Battery #1 Pushing Baghouse

Regulated by: Coke Oven NESHAP, 40 C.F.R. § 63.7300(b)  
Title V Permit, Attachment A

Source: Semiannual Deviation and Compliance Monitoring Report: July 1, 2008 – December 31, 2008  
Semiannual Deviation and Compliance Monitoring Reports:  
January 1, 2009 – December 31, 2009

Failure to Operate Baghouse Associated with the Coke Oven Battery:

Date(s)	Coke Oven Battery	# of Violations
04/16/08	#1	1
08/27/08	#1	1
09/20/08	#1	1
09/24/08	#1	1
02/12/09	#1	1
08/03/09	#1	1
02/05/10	#1	1
04/02/10	#1	1
06/02/10	#1	1



s. Coke Oven Battery #2 Pushing Baghouse

Regulated by: Coke Oven NESHAP, 40 C.F.R. § 63.7300(b)  
Title V Permit, Attachment A

Source(s): Semiannual Deviation and Compliance Monitoring Report:  
January 1, 2009 – June 30, 2009  
Semiannual Deviation and Compliance Monitoring Report: July 1,  
2008 – December 31, 2008

Failure to Operate Baghouse Associated with the Coke Oven Battery:

Date(s)	Coke Oven Battery	# of Violations
09/24/08	#2	1
02/12/09	#2	1

t. Coke Oven Battery Pushing Baghouse Fan Amperage

Regulated by: Coke Oven NESHAP, 40 C.F.R. § 63.7300(b)  
ArcelorMittal's Title V Permit, Attachment A

Sources: Semiannual Deviation and Compliance Monitoring Report: July 1,  
2008 – December 31, 2008

ArcelorMittal reported that it failed to record fan amperage for the pushing  
emissions control system on at least 8 days.

u. Coke Oven Battery Pushing Baghouse Quench Baffles

Regulated by: Coke Oven NESHAP 40 C.F.R. § 63.7295(b),  
Title V Permit, Attachment A

Evidence: Semiannual Deviation and Compliance Monitoring Report: July  
1, 2008 – December 31, 2008  
Semiannual Deviation and Compliance Monitoring Report: July  
1, 2009 – December 31, 2009  
Semiannual Deviation and Compliance Monitoring Report:  
January 1, 2010 – June 30, 2010

ArcelorMittal reported that it failed to wash the quench baffles on July 15, 2008,  
November 3, 2009, and June 25-27, 2010

v. Pickling Line Parametric Monitoring

Regulated by: Steel Pickling NESHAP, 40 C.F.R. § 63.1162(a)(2) and (4)  
Title V Permit, Attachment A

Sources: Semiannual Deviation and Compliance Monitoring Report: July 1, 2008 – December 31, 2010  
Semiannual Deviation and Compliance Monitoring Report: July 1, 2008 – December 31, 2010

Failure to Continuously Measure and Record Fume Scrubber Flow Rate and Differential Pressure:

Date(s)	# of Violations
07/27/08	1
09/21/09	1
11/18/09	1
11/28/09	1

w. Pickling Line HCl Emissions

Regulated by: Steel Pickling NESHAP, 40 C.F.R. § 63.1157(a)  
Title V Permit, Attachment A

Sources: Semiannual Deviation and Compliance Monitoring Report: July 1, 2008 – December 31, 2008

Failure to Comply with Scrubber Collection Efficiency:

Date(s)	Limits	# of Violations
07/21/08 – 08/12/08	18 ppm or 97% cont. eff.	1
08/15/08 – 09/12/08	18 ppm or 97% cont. eff.	1
09/17/08	18 ppm or 97% cont. eff.	1

ArcelorMittal reported that operating problems were reasonably expected to have caused emissions of HCl exceeding 18 ppm or less than 97% collection efficiency.

x. Pickling Line Scrubber Flow Rate

Regulated by: Steel Pickling NESHAP, 40 C.F.R. § 63.1161(b)  
Title V Permit, Attachment A

Sources: Semiannual Deviation and Compliance Monitoring Report: July 1, 2008 – December 31, 2008  
Semiannual Deviation and Compliance Monitoring Report: July 1, 2010 – December 31, 2010

Failure to Attain Scrubber Flow Rate within Permitted Range:

Date(s)	Time(s)
10/15/08	14:26 – 14:30
12/14/10	08:48 – 09:30
02/06/10	13:00 – 13:34

y. Roads Fugitive Dust Plan

Regulated by: Title V Permit, Condition D.12.4

Sources: Quarterly Deviation and Compliance Monitoring Reports:  
January 1, 2009 – September 30, 2009  
Quarterly Deviation and Compliance Monitoring Reports: January  
1, 2010 – March 31, 2010  
Quarterly Deviation and Compliance Monitoring Reports: October  
1, 2010 – December 31, 2010

ArcelorMittal reported that the average vehicle weight on slab hauler roads exceeded 157 tons. ArcelorMittal reported that monthly vehicle inspections were missing for some vehicles.

z. Blast Furnaces - Capture and Control Equipment

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7800(b)  
Title V Permit, Condition E.1.1

Source: Semiannual Deviation and Compliance Reports: January 1, 2008 –  
December 31, 2008  
Semiannual Deviation and Compliance Reports: January 1, 2009 –  
December 31, 2009  
Semiannual Deviation and Compliance Reports: January 1, 2010 –  
December 31, 2010

- i. Failure to meet minimum control device airflows at the C Blast Furnace tapping hoods on 54 days in 2008, 43 days in 2009, and 9 days in 2010;
- ii. Failure to meet minimum control device airflows at the C Blast Furnace tilting runner hoods on 62 days in 2008, 42 days in 2009, and 6 days in 2010;
- iii. Failure to meet minimum control device airflows at the D Blast Furnace tapping hoods on 20 days in 2008, and 13 days in 2010;
- iv. Failure to meet minimum control device airflows at the D Blast Furnace tilting runner hoods on 13 days in 2008;
- v. Furnace C operated with only intermittent use of a baghouse leak detection system in place from January 29, 2008, to February 5, 2008;
- vi. Failure to properly operate the capture and control system on the C Blast Furnace casthouse, including failing to respond to bag leak detection alarms as required on 11 days in 2008; and

- vii. Failure to properly operate the capture and control system on the D Blast Furnace casthouse, including failure to respond to bag leak detection alarms as required on 9 days in 2008.

aa. Blast Furnaces -- Monitoring Equipment

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7830(a)  
Iron and Steel NESHAP, 40 C.F.R. § 63.7832(a)  
Title V Permit, Condition E.1.1

Source: Semiannual Deviation and Compliance Report: June 1, 2008 –  
December 31, 2008

Failure to record the capture airflow at the D Furnace from September 12, 2008, through September 25, 2008. ArcelorMittal did not take reasonable action to cease the generation of emissions after the monitoring equipment had malfunctioned or remedy the equipment malfunction (probe failure) in a timely manner.

bb. BOF Shop -- Capture and Control Equipment

Regulated by: Iron and Steel NESHAP, 40 C.F.R. § 63.7800(b)  
Title V Permit, Condition E.1.1

Sources: Semiannual Deviation and Compliance Reports: January 1, 2008 –  
December 31, 2008  
Semiannual Deviation and Compliance Reports: January 1, 2009 –  
December 31, 2009  
Semiannual Deviation and Compliance Reports: January 1, 2010 –  
December 31, 2010

- i. Failure to perform monthly inspections in 2008;
- ii. Failure to respond to bag leak detection alarms on 3 days at the BOF baghouse, 18 days on the Hot Metal Desulfurization (HMD) baghouse, and 7 days on Ladle transfer baghouse in 2008;
- iii. Failure to meet minimum collection systems airflows on the #1 BOF vessel on 55 days in 2008 and 1 days in 2009;
- iv. Failure to record collection systems airflows on #1 BOF vessel on 5 days in 2008;
- v. Failure to meet minimum collection systems airflows on #2 BOF vessel on 1 days in 2008;

- vi. Failure to record collection systems airflows on #2 BOF vessel on 66 days in 2008;
  - vii. Failure to meet minimum collection systems airflows on #3 BOF vessel on 2 days in 2008;
  - viii. Failure to record collection systems airflows on #3 BOF vessel on 7 days in 2008;
  - ix. Failure to meet minimum differential pressure on #1 through #4 scrubbers on 24 days in 2008;
  - x. Failure to keep record of steel production cycle on 1 day in 2008;
  - xi. Insufficient water flow rate through scrubbers #1 through #4 on 9 days in 2008;
  - xii. Failure to take action to remedy alarms, document the remedy, or the system failed to alarm or record readings as specified in the O&M Plan associated with the BOF shop operations on 21 days in 2008, on 12 days in 2009, and 7 days in 2010; and
  - xiii. Weekly confirmation of dust removal from the hoppers in the #4 LTS Baghouse, #5 LTS Baghouse, #2 HMD, #3 HMD, #2/3 HMD, and SECS/MACT Baghouse were not recorded on 1 day in 2010.
- cc. Blast Furnace Granulated Coal Injector Baghouse #1 and #2

Regulated by: Title V Permit, Condition D.3.5

Sources: Quarterly Deviation and Compliance Monitoring Report: January 1, 2009 – March 31, 2009  
 Quarterly Deviation and Compliance Monitoring Report: April 1, 2010 – June 30, 2010  
 Quarterly Deviation and Compliance Monitoring Report: October 1, 2010 – December 31, 2010  
 Quarterly Deviation and Compliance Monitoring Report: January 1, 2011 – March 31, 2011

- i. The daily differential pressure check was not completed for 18 days during the second quarter of 2010;
- ii. The weekly Granulated Coal Injector (GCI) inspections were not performed for 3 weeks during the second quarter of 2010; and

- iii. The annual calibration of the differential pressure sensor for GCI system #1 and #1 baghouses was not performed in 2010.

dd. Equipment Calibration and Inspection

Regulated by: Title V Permit, Condition B.10

Sources: Quarterly Deviation and Compliance Monitoring Reports: January 1, 2010 – December 31, 2010  
Quarterly Deviation and Compliance Monitoring Report: January 1, 2011 – March 31, 2011

- i. Preventative maintenance plans were not fully implemented in second quarter of 2010;
- ii. Monthly preventative maintenance plan inspections and/or calibrations of the vacuum degasser baghouse not performed in second quarter of 2010;
- iii. Monthly preventative maintenance plan inspections and/or calibrations of the Flux Bin Baghouse not performed in second quarter of 2010;
- iv. Monthly preventative maintenance plan inspections and/or calibrations of the H1 and H2 Junction baghouse not performed in second quarter of 2010;
- v. Monthly preventative maintenance plan inspections and/or calibrations of the Track Hopper Baghouse not performed in second quarter of 2010;
- vi. Monthly preventative maintenance plan inspections and/or calibrations of the Weigh Hopper Baghouse not performed in second quarter of 2010;
- vii. Monthly preventative maintenance plan inspections and/or calibrations of the Ladle/Subcar Dryer not performed in second quarter of 2010;
- viii. Monthly preventative maintenance plan inspections and/or calibrations of the Vacuum Degasser Flare not performed in second quarter of 2010;
- ix. Monthly preventative maintenance plan inspections and/or calibrations of the Gas Analyzer and Flare Stack at the Vacuum Degasser not performed in second quarter of 2010;
- x. HDCL FCE NOx analyzer downturn preventative maintenance not completed in third quarter of 2010;
- xi. Quarterly and annual inspection of #2 Roll blaster baghouse not completed on time in third quarter of 2010;

- xii. Annual calibration of C BF Stoves coke oven gas (COG), blast furnace gas (BFG), and natural gas (NG) fuel meter not completed in third quarter of 2010;
- xiii. Semiannual calibration of the C BF BFG FCE Flare pilot light/thermocouple was not completed in 2010;
- xiv. 2- month inspection of the car dumper baghouse was missed in third quarter of 2010;
- xv. Monthly preventative maintenance of the vacuum degasser baghouse not completed in third quarter of 2010;
- xvi. Flow meter calibration of the BOF Ladle Dryer not completed for 6 dryers in third quarter of 2010;
- xvii. Weekly preventative maintenance of the caster mist eliminators not completed 4 times in third quarter of 2010;
- xviii. Annual inspection of the CHTL Scrubber not completed on time in 2010;
- xix. Missed annual calibration of the Power Station #9 NG, COG, BFG fuel meters in 2010;
- xx. Semiannual mechanical inspection of north and south blast booth performed 11 days late in 2010;
- xxi. Semiannual inspection of #2 Roll shop blaster baghouse not performed in 2010;
- xxii. Annual calibration C BF Stoves NG Fuel meter not completed on time in 2010;
- xxiii. Semiannual flow meter calibration on the C BF BFG FCE Flare was not completed on time in 2010;
- xxiv. BFG C FCE Flare pilot light/thermocouple equipment check not completed on time in fourth quarter of 2010;
- xxv. Annual fan amp calibration on the north and south car dumper baghouse not completed in fourth quarter of 2010;
- xxvi. Monthly inspection of the BOF Vacuum degasser baghouse one not completed in fourth quarter of 2010;

- xxvii. Quarterly inspection of the BOF Flux bin baghouse not completed on time in fourth quarter of 2010;
- xxviii. Annual NG Flow calibration of the BOF ladle dryer not performed in 2010;
- xxix. Annual NG Flow calibration of the two BOF Sub Car Dryers not completed in 2010;
- xxx. Annual gas analyzer certification and flare calibration of the BOF VDG Flare Stack not performed in 2010;
- xxxi. Weekly mechanical inspections and lube inspections of the caster fog exhauster not performed one week of the quarter in fourth quarter of 2010;
- xxxii. Annual inspection of the Hot Strip Mill Reheat Furnaces #1, #2, and #3 not performed; in 2010
- xxxiii. Quarterly Inspection of the Cold Strip Mill Temper Mill Mist eliminator not performed in fourth quarter of 2010;
- xxxiv. Annual inspection of the Cold Strip Mill HDCL Scrubber not performed in 2010;
- xxxv. Maintenance records for the Cold Strip Mill HDCL and NOx Analyzer turndown were not available in the fourth quarter of 2010;
- xxxvi. Annual calibration of the car dumper baghouse not completed on time in 2011;
- xxxvii. Blast furnace C and D BFG flare thermocouple calibrations not completed on time in first quarter of 2011;
- xxxviii. Calibrations of the Hot Strip Mill Reheat Furnace COG not completed on time in first quarter of 2011;
- xxxix. Semiannual inspection of the Hot Strip Mill #2 Roll Shop Grinder Baghouse not completed on time in 2011; and
- xl. Weekly inspections of the Caster #1 and #2 Demister not completed twice in first quarter of 2011.

#### **IV. ENVIRONMENTAL IMPACT OF VIOLATIONS**

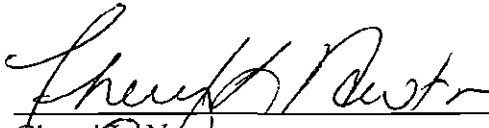
- a. Violation of the opacity standards increases public exposure to unhealthy particulate matter. Particulate matter, especially fine particulate,



contributes to respiratory problems, lung damage and premature deaths.

- b. Ground level concentrations of SO<sub>2</sub> contribute to respiratory illness, particularly in children and the elderly and aggravate existing heart and lung diseases. Peak levels of SO<sub>2</sub> in the ambient air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures to high levels of SO<sub>2</sub> gas and particles cause respiratory illness and aggravate existing heart disease.
- c. Violations of the monitoring, recordkeeping and reporting requirements prevent U.S. EPA from knowing whether an affected facility has maintained compliance with the applicable emission standards.

10/21/11  
Date

  
Cheryl L. Newton  
Director  
Air and Radiation Division

CERTIFICATION OF MAILING

I, Betty Williams, certify that I sent a Notice and Finding of Violation,

No. EPA-5-11-IN-11, by Certified Mail, Return Receipt Requested, to:

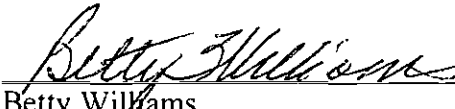
Rob Maciel  
Environmental Manager  
250 West U.S. Highway 12  
Burns Harbor, Indiana 46304

I also certify that I sent a copy of the Notice and Finding of Violation,

No. EPA-5-11-IN-11, by first class mail to:

Janusz Johnson  
Office of Enforcement Air Section  
Indiana Department Environmental Management  
100 North Senate Avenue, Room 1001  
Indianapolis, Indiana 46206-6015

on the 26<sup>th</sup> day of October 2011.

  
Betty Williams  
Administrative Program Assistant  
AECAB/AECAS/PAS

CERTIFIED MAIL RECEIPT NUMBER: 70091080000076727976